Sessionmix 8

ORDERCODE D2191

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from DAP Audio.
The DAP Audio Sessionmix 8 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

You can rely on DAP Audio, for more excellent audio products.
We design and manufacture professional audio equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@dap-audio.info

You can get some of the best quality, best priced products on the market from DAP Audio.
So next time, turn to DAP Audio for more great audio equipment.
Always get the best -- with DAP Audio !

Thank you!

DAP Audio Sessionmix 8™ Product Guide

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WARNING

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- DAP Sessionmix 8
- 1X AC/AC adapter AC500E 2x 18VAC~ 500mA
- User manual

⚠ Return Procedure ⚠

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

1) Your name
2) Your address
3) Your phone number
4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

WARNING

CAUTION!

Keep this system away from rain and moisture!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this system to a dimmerpack.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- Do not plug Mics into the console (or stagebox) while Phantom Power is on. Also mute the monitor / Pa system when turning Phantom Power on or off. Allow the system to adjust for a couple of seconds, before setting the input gains.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Always operate the unit with the AC ground wire connected to the electrical system ground.
- Make sure you don't use the wrong kind of cables or defective cables.
- Make sure that the signals into the mixer are balanced, otherwise hum could be created.
- Make sure you use DI boxes to balance unbalanced signals; All incoming signals should be clear.

- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the system and the power-cord from time to time.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- Extreme frequency boosts in connection with a high input signal level may lead to overdriving your equipment. Should this occur, it is necessary to reduce the input signal level by using the INPUT control.
- To emphasize a frequency range, you don't necessarily have to move its respective control upward; try lowering surrounding frequency ranges instead. This way, you avoid causing the next piece of equipment in your sound path to overdrive. You also preserve valuable dynamic reserve ("headroom")
- Avoid ground loops! Always be sure to connect the power amps and the mixing console to the same electrical circuit to ensure the same phase!
- If system is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

This system is not designed for permanent operation. Consistent operation breaks will ensure that the system will serve you for a long time without defects.

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
⏚	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

Description of the device

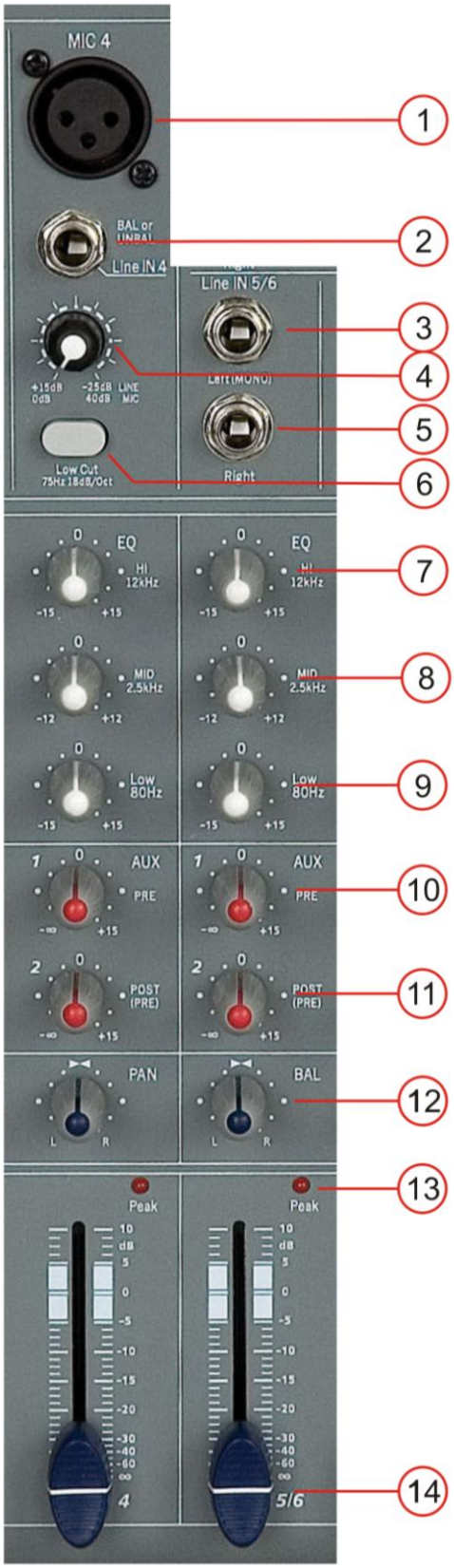
Features

The Sessionmix 8 is a mixer from Dap Audio.
- 8 input channels
- 4 mono MIC inputs
- 2 stereo Line inputs
- Extremely high headroom offering enough dynamic range
- Extra low distortion pre-amp section
- Better performance with excellent noise figures
- High quality potentiometers & HQ smooth faders
- Robust construction for long time operation
- 48V Phantom power switch (on backside)

Overview

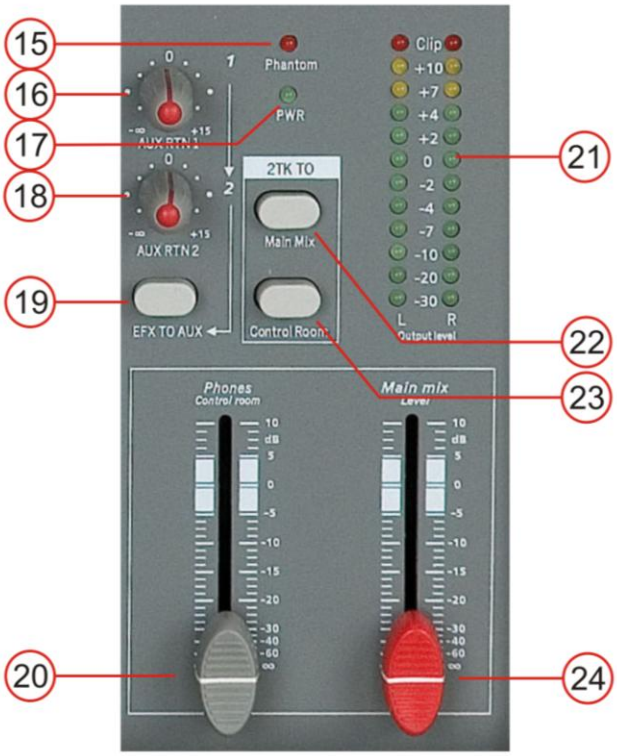
Fig. 1

Frontside



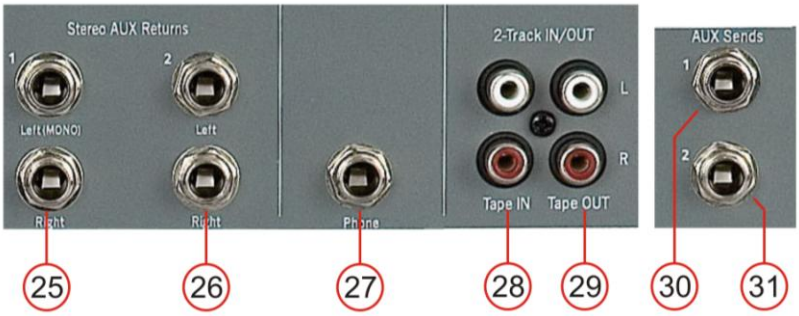
1) Balanced mic input (mono channel)
2) Balanced line input mono (mono channel)
3) Left line input (stereo channel)
4) Gain
range for mic +0 / +40 dB
range for line -25 / +15 dB
5) Right line Input (stereo channel)
6) Low cut filter (mono channel)
7) EQ hi, range -15 / +15 dB
8) EQ mid, range -15 / +15 dB
9) EQ low, range -15 / +15 dB
10) Aux 1 level
11) Aux 2 level
12) Mono channel, panorama
Stereo channel, balance
13) Peak LED
14) Channel Level

Fig. 2



15) Phantom power LED
16) Aux 1 return
17) Power on LED
18) Aux 2 return
19) Aux 1 to Aux 2 switch
20) Phones/ control room level fader
21) LED VU meter
22) 2TK to main mix switch
23) 2TK to main mix switch
24) Main mix level

Fig. 3



25) Stereo Aux 1 Returns
26) Stereo Aux 2 Returns
27) Phones out
28) Tape in
29) Tape out
30) Aux 1 Send
31) Aux 2 Send

Fig. 4

Backside

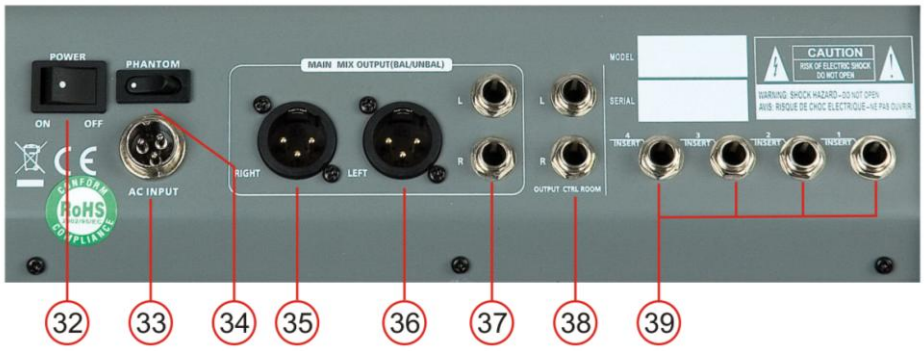


Fig. 5

32) Power on/off
33) AC-adapter input
34) Phantom power switch
35) Main mix right balanced out
36) Main mix left balanced out
37) Main mix unbalanced out left/ right
38) Control room unbalanced out left/ right
39) Channel 1-4 insert

Installation

Remove all packing materials from the Sessionmix 8. Check that all foam and plastic padding is removed. Connect all cables.

Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Fig. 6

Mono Input Channels
Channels 1-4 are mono, with a choice of balanced mic or line inputs. Each mono channel has its own insert jack on the back of the unit (see fig. 5).

Fig. 7

Stereo Input Channels
A further 4 line inputs are configured as 2 stereo input channels. These are ideal for accepting outputs from MIDI-keyboards or modules, CD-players and other electronic instruments.

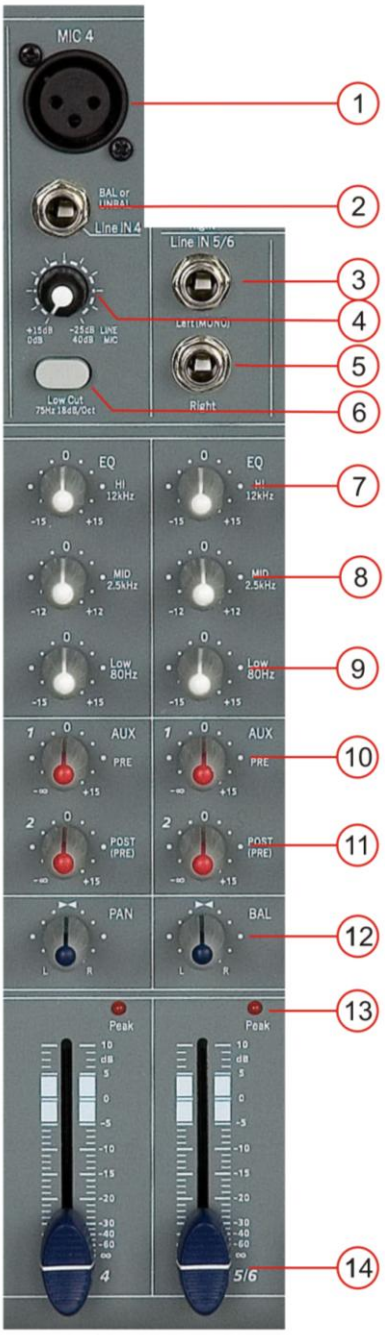


Fig. 8

1. Mic
Electronically balanced XLR-type inputs for connecting low-impedance microphones. The input provides extremely low noise and low hum signal processing. When connecting a microphone make sure that the pin assignment is correct. Always make sure to read the manual of the microphone you want to connect. The XLR-inputs are not suitable for connecting line level signals like an additional mixing console, FX-unit, etc. You have to use the LINE-inputs, when connecting this kind of equipment.

2. Line
Electronically balanced inputs for connecting a keyboard, CD player, mixer, etc. You can connect balanced or unbalanced signal sources to the Line input. Do not connect signal devices to a channel's MIC and LINE input at the same time. This will cause mutual interference, which results in level reduction.

Note: When connecting signal sources, please make sure that the corresponding channel faders and the master faders are at their minimum settings. Otherwise plug-in noise can occur.

3/ 5. LINE in
Unbalanced stereo inputs for connecting a keyboard, CD player, mixer, etc. You can connect unbalanced signal sources to the Line input. If using a mono device, always connect it to the Left (mono) input.

Note: When connecting signal sources, please make sure that the corresponding channel faders and the master faders are at their minimum settings. Otherwise plug-in noise can occur.

4. Gain
Mic Channel input level is determined by the Gain control. With the Gain control you can adjust the MIC or LINE input-sensitivity, while optimally matching the incoming signals to the mixer's internal operation level. The high gain of this mixer is ideal when dealing with very low input levels (i.e. vocal recordings or distant sound sources).

How to set the Input level:
1) Set the gain control and the corresponding channel fader to their minimum setting.
2) Connect the desired sound source (CD player, microphone, etc.) to the corresponding mic or line input.
3) Play the sound source at its highest volume setting; respectively, sing or speak as loud as possible directly into the microphone.
4) While doing so, adjust the input level using the gain control, so that during the loudest passages the peak LED is just not lit.

This basic channel setting leaves you at least 8dB headroom. This means, you have at least 8dB before signal clipping. If you want to make further adjustments to the channel's EQ setting, you should repeat step **3** and **4** again.

6. Low cut switch
If you push the "Low Cut" button, a filter will be inserted into the audio chain of the Sessionmix 12 DSP that has a characteristic 75Hz, 18dB/oct high pass characteristic to cut any undesired low frequencies. This function can be used to cut the humming sound or to prevent resonances of low frequencies, when the speakers are placed in close distance.

7 / 8 / 9. Equalizer SECTION (HI / MID / LOW)
The mixer's Equalizer section allows shaping of the incoming audio signal. All mono input channels are fitted with 3-band EQ. The upper (6) and lower (8) shelving controls have their frequencies fixed at 12 KHz and 80 Hz respectively. The Mid range control (7) has a peaking response frequency at 2.5 KHz. All 3 bands have up to 15 dB cut and boost. Turning the Equalizer to the right amplifies the frequency range, turning to the left attenuates the signal. Minor changes to the Equalizer control usually produce the best results. Try to avoid excessive enhancement of the MID band.

10. AUX 1
The FX control allows you to change the Aux 1 level to the FX Mix.

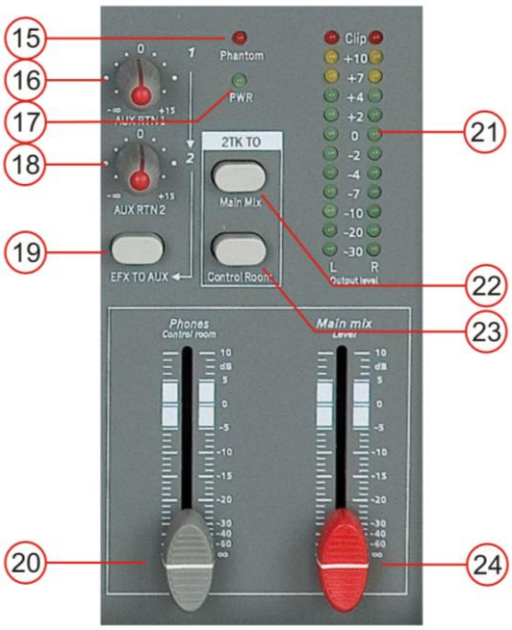
11. AUX 2
The FX control allows you to change the Aux 2 level to the FX Mix.

12. Pan (Mono Channels)
By using the panorama control you can change the input signal's position within the stereo image. When the panorama control is set to center position, the audio signal is equal for both the left and right output.

Bal (stereo channels)
By using the balance control you can adjust the balance between the left and the right channel. If you use a mono source (input left mono) the control works as a panorama control and lets you change the input signal's position within the stereo image.

13. PEAK Indicator
The peak indicator shows peak levels in a channel's incoming signal level. If the red peak LED frequently blinks or constantly lights, the corresponding channel is likely to enter clipping and you have to reduce the input's amplification using the gain control. The peak LED lights at a level of 8 dB below clipping. Make sure that the Peak LED lights only briefly during dynamic peaks.

14. Channel Fader
The fader controls the volume of a single channel. The channel faders should be positioned within the range of -5dB to 0dB, leaving you with sufficient room to allow precise matching of differences in the channel's level settings. The overall volume is set with the master fader. Even though the channel faders offer an additional gain of +10dB, it is better not to exceed the +5dB position.



15. Phantom Power LED
This LED indicates when the phantom power is switched on for the microphone inputs. After switching on the mixer, the red LED should not light up. So both balanced and unbalanced microphones can be connected. Unbalanced microphones may be damaged if the Phantom power is activated however unbalanced microphones are rarely to be found these days.

16. Aux 1 return
This control allows you to adjust the Aux 1 level to the main mix.

17. Power LED
The green power LED lights when the Sessionmix is turned on. If after switching the device on, the LED does not light, make sure that the AC adapter is connected properly. If the LED still doesn't light up after everything is connected right, please contact your DAP audio dealer.

Fig. 9

18. Aux 2 return
This control allows you to adjust the Aux 2 level to the main mix.

19. Aux 1 to Aux 2 switch
This button allows you to route the output of the Aux 1 to the Send of Aux 2 allowing you to switch two internal external effects in series.

20. Phones/ Control room fader
This fader allows you to adjust the control room/ phones output volume.

Caution: Depending on the type of headphones connected to the phones jack, the Powermix is capable of producing very high output levels via the phones output. Therefore, make sure to turn the control all the way down (minimum setting) before connecting the headphones.
Listening to loud sound pressure levels over a longer period of time leads to hearing damage!

21. LED VU meter

22. Assign 2TK to main mix
Use this button to assign the 2TK input to the main mix. The level of the 2TK input is fixed.

23. Assign 2TK to the Phones/ Control room group
Use this button to assign the 2TK input to the Phones/ Control group. The level of the 2TK input is fixed.

24. Main mix fader
This fader allows you to adjust the main mix level.

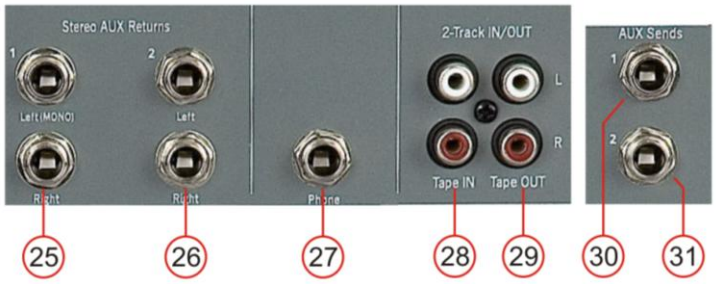


Fig. 10

25. Aux 1 returns
Use these stereo inputs in combination with the Aux 1 send to connect an external effect device.

26. Aux 2 returns
Use these stereo inputs in combination with the Aux 2 send to connect an external effect device.

27. Phone out
You can connect a pair of headphones with a minimum impedance of 32 Ohm to this stereo 1/4" jack should be wired as Tip=left, Ring=right and sleeve=ground.

28. Tape in stereo RCA

29. Tape out stereo RCA

30. Aux 1send
Use this output in combination with the Aux 1 returns to connect an external effect device.

31. Aux 2 send
Use this output in combination with the Aux 2 returns to connect an external effect device.

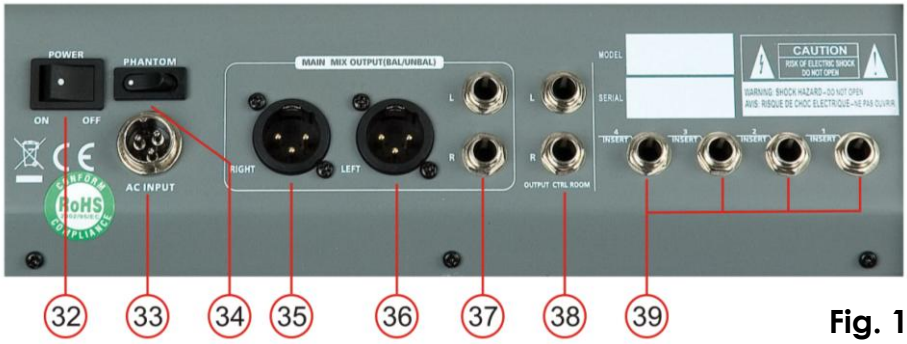


Fig. 11

32. Power On/Off
Do not supply power before the whole system is set up and connected properly.

33. Remote Power Supply Input Socket
This is the remote AC power supply input socket for the Sessionmix. It is a special three core socket. Please use the supplied DAP audio adapter only.

34. Phantom Power Switch
Press this button to turn the phantom power +48V on. Do not connect any unbalanced microphones with the phantom power switched on. The red Phantom LED (15) will light if the phantom power is activated.

35. Main out R balanced

36. Main out L balanced

37. Main out L/R unbalanced

38. Control room out stereo unbalanced

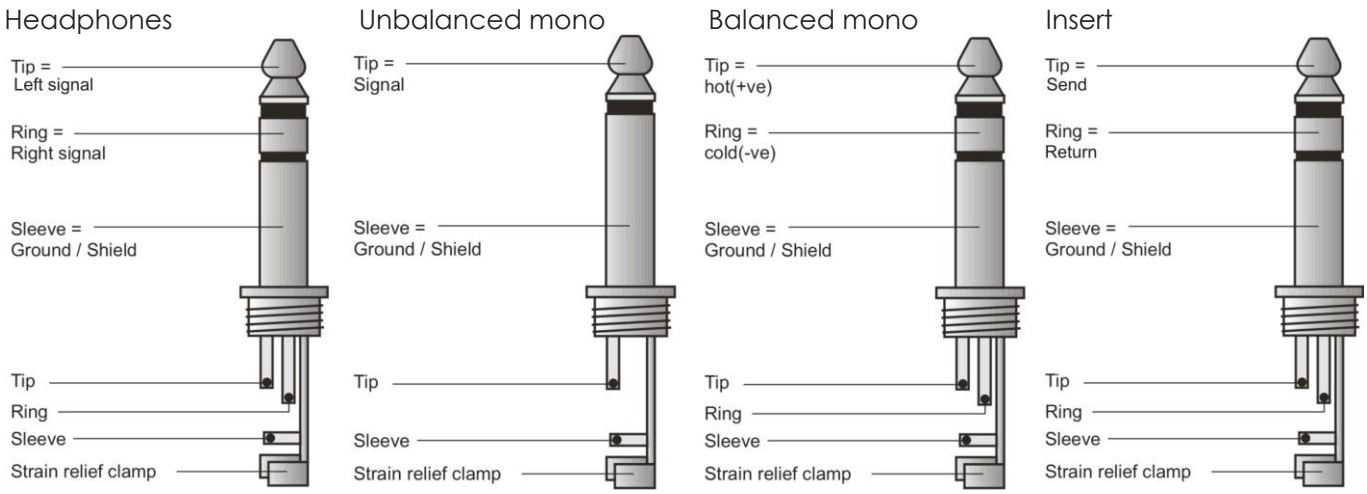
64. Channel 1-4 insert
Insert for external device, effect, compressor etc. It provides an output of the channels at line-level. At the same time the inserts have an input at line level from where the signal is further routed through the channels equalizer and so forth. When not in use (unplugged), input and output are connected to provide normal signal flow in that channel.

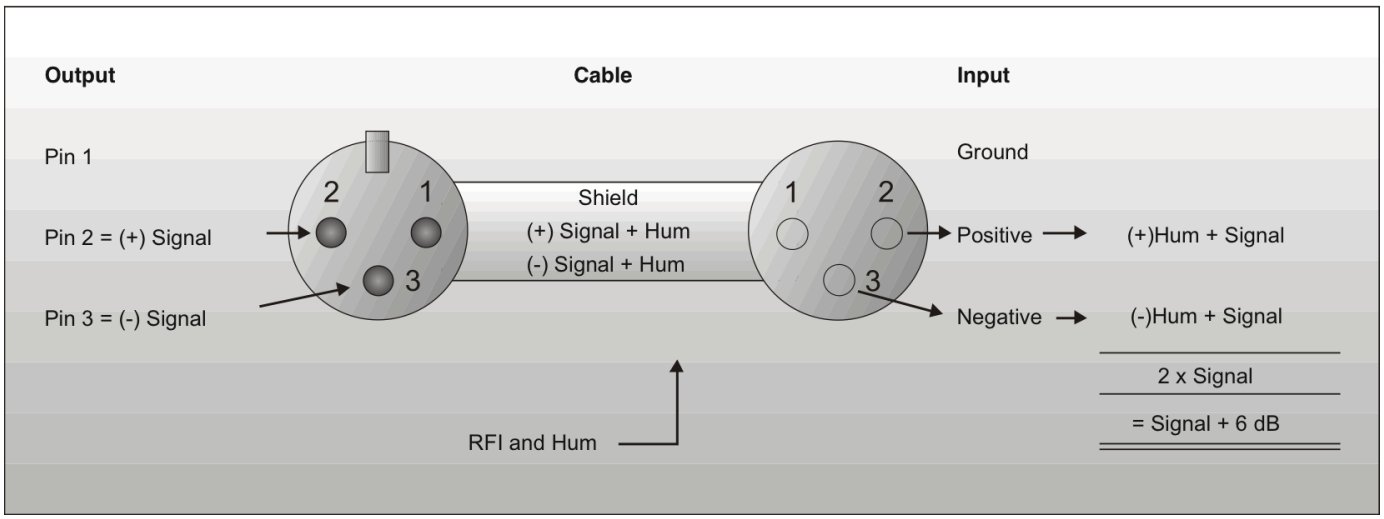
Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

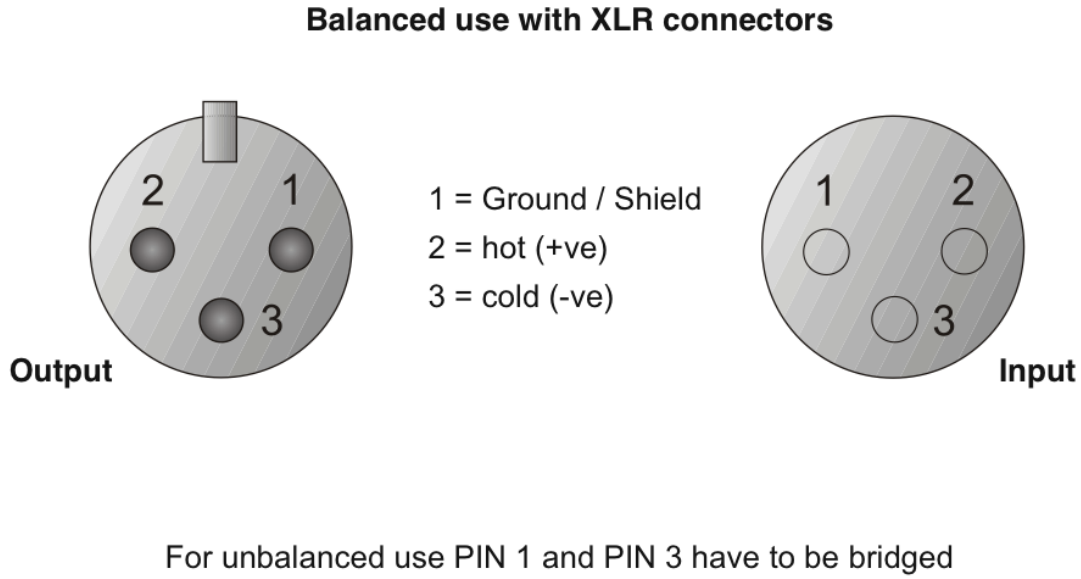
Connection Cables

Take care of your cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability.
Periodically check your cables. A great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.





Compensation of interference with balanced connections



Maintenance

The DAP Audio Sessionmix 8 requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the connectors with a damp cloth. Make sure connectors are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

DAP Audio Sessionmix 8
This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
1. If the device does not operate properly, unplug the device.
2. Check power from the wall, all cables, the fuse, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, unplug the device.
5. Return the device to your DAP Audio dealer.

Product Specification

Model: DAP Audio Sessionmix 8

Mono input channels:
Mic 1-4 input Electronically balanced
Freq. response: 20 Hz - 22 kHz, +/- 1 dB
Distortion (THD +N): <0,03% at +0 dB, 1 kHz
Gain Range: 0 dB - 40 dB (Mic)
SNR: >85 dB
Line input: Electronically balanced
Sensitivity range: +15 dB ~ -25 dB

Stereo input channels:
Line input: Electronically balanced
Frequency response: 20 Hz - 22 kHz, +/- 1 dB
Distortion (THD +N): <0,03% at +0 dB, 1 kHz

Impedances:
Input impedance: 10 kilo-Ohm
Out impedance: 120 Ohm
Tape out: 1 kilo-Ohm

Equalization:
Hi: +/- 15 dB @ 12 kHz
Mid: +/- 15 dB @ 2,5 kHz
Low: +/- 15 dB @ 80 Hz

Main mix section:
Max. output: +22 dB u balanced XLR
+16 dB u unbalanced, 1/4 jacks
AUX return gain range: Off to +15 dB
AUX sends max. out: +15 dB

Power supply:
Input voltage: 2x 18VAC, 500mA
Power consumption: 18W (max.)

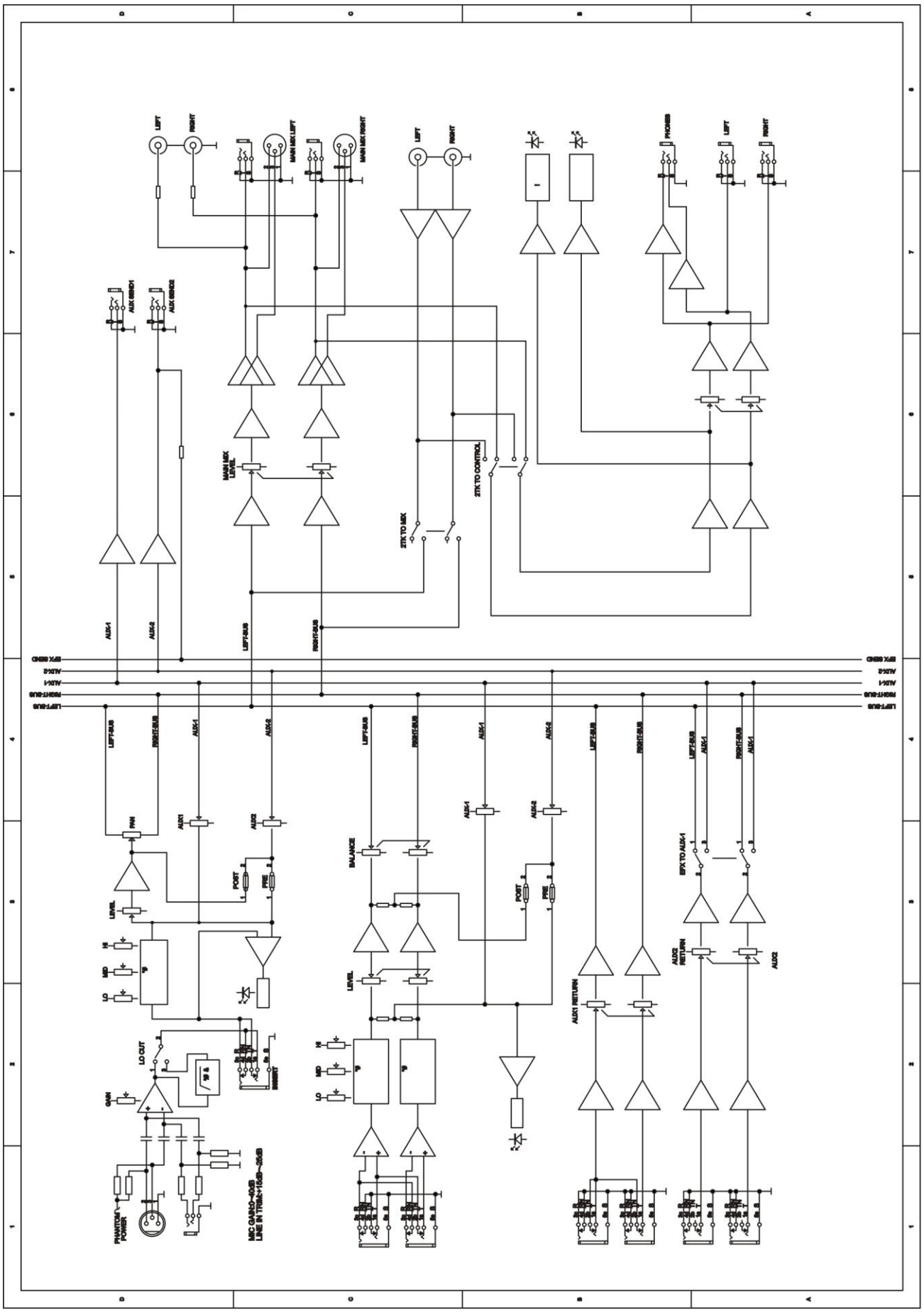
Dimensions (LxWxH): 270 x 353 x 80 mm
Weight: 3,4 kg

Design and product specifications are subject to change without prior notice.

CE

Website: www.Dap-audio.info
Email: service@highlite.nl

Appendix 1: Sessionmix 8 DSP block diagram



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